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ARMY ELECTRONICS COMMAND WHITE SANDS MISSILE RANGE N--ETC F/6 16/4.2
12831D LANCE MISSILE NUMBER 3298, ROUND NUMBER 304 ESL (3 DECEM--ETC(U)
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METEOROLOGICAL DATA REPORT

12831D LANCE
MISSILE NO. 3298, ROUND NO. 304 ESL
(3 December 1977)

BY

WSMR METEOROLOGICAL TEAM

ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Meteorological data gathered for the launching of 12831D Lance, Missile Number 3298, Round Number 304 ESL, are presented in tabular form.		

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INTRODUCTION

12831D Lance, Missile Number 3298, Round Number 304 ESL, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0853 HRS MST, 3 December 1977. The scheduled launch time was 0815 HRS MST.

DISCUSSION

Meteorological data were recorded and reduced by the WSMR Meteorological Team, Atmospheric Sciences Laboratory (ASL), WSMR, New Mexico. The data are presented in the following tabulations.

ELEVATION	3,987	FEET/MSL
PRESSURE	878.2	MBS
TEMPERATURE	6.0	°C
RELATIVE HUMIDITY	38	%
DEW POINT	-7.2	°C
DENSITY	1,093	GM/M ³
WIND SPEED/DIR	CALM	MPH/DEGREES
CLOUD COVER	CLEAR	

TABLE I. SURFACE OBSERVATIONS TAKEN AT LC-33,
0900 HRS MST/3 DECEMBER 1977.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM		2100	310	15.5
100	340	0.5	2200	310	12.5
200	340	0.5	2300	320	13.0
300	330	0.5	2400	320	14.0
400	333	3.0	2500	320	16.5
500	302	2.0	2600	320	17.5
600	351	1.5	2700	315	20.0
700	355	1.5	2800	315	22.0
800	265	2.0	2900	305	19.5
900	250	1.5	3000	310	20.5
1000	230	2.0	3100	315	21.0
1100	295	2.0	3200	315	20.5
1200	320	2.5	3300	315	21.5
1300	335	2.5	3400	320	22.5
1400	310	3.5	3500	325	22.5
1500	290	7.0	3600	325	21.0
1600	290	10.0	3700	330	20.0
1700	310	9.0	3800	325	21.0
1800	300	12.0	3900	325	24.0
1900	300	12.0	4000	325	24.0
2000	310	13.0	4100	330	26.0

TABLE II. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 1
RELEASED FROM LC-33, AT 0857 MST/3 DECEMBER 1977
12831D LANCE, MISSILE NO. 3298, ROUND NO. 304 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 815 FT. SSE OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	335	29.5
4300	330	29.0
4400	330	29.0
4500	335	30.0
4600	335	27.0
4700	330	30.0
4800	330	31.0
4900	330	32.0
5000	330	30.0
5100	325	29.5
5200	320	31.0
5300	320	31.5
5400	320	29.0
5500	320	27.0
5600	315	25.0

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
5700	315	22.5
5800	315	24.0
5900	320	23.5
6000	310	20.5
6100	310	19.0
6200	310	20.0
6300	320	18.0
6400	310	21.0
6500	305	23.0
6600	310	24.5
6700	300	31.5
6800	300	30.0
6900	300	29.5
7000	295	28.5

TABLE II. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)	HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
SUR	CALM		2100	310	12.5
100	350	0.5	2200	315	12.0
200	350	0.5	2300	310	12.0
300	330	1.0	2400	315	14.0
400	325	1.5	2500	310	14.0
500	330	2.0	2600	310	13.5
600	330	2.5	2700	320	14.0
700	340	3.0	2800	315	27.0
800	025	2.5	2900	315	16.5
900	045	2.5	3000	315	17.5
1000	010	2.5	3100	315	19.0
1100	005	3.0	3200	315	20.5
1200	320	5.0	3300	320	22.5
1300	330	4.5	3400	320	25.0
1400	305	5.5	3500	320	19.5
1500	285	7.5	3600	320	24.0
1600	290	10.0	3700	325	25.0
1700	295	11.5	3800	325	26.0
1800	300	12.0	3900	320	25.0
1900	300	11.5	4000	325	26.5
2000	305	13.0	4100	325	25.5

TABLE III. PILOT-BALLOON-MEASURED WIND DATA, RELEASE NO. 2
RELEASED FROM LC-33, AT 0903 MST/3 DECEMBER 1977
12831D LANCE, MISSILE NO. 3298, ROUND NO. 304 ESL

PIBAL RELEASE POINT WSTM COORDINATES:

X = 486,296.83 Y = 185,251.85 Z = 3,986.67

APPROXIMATELY: 815 FT. SSE OF LAUNCHER

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
4200	325	26.5
4300	320	28.5
4400	325	27.0
4500	320	27.5
4600	320	28.0
4700	315	27.5
4800	320	27.5
4900	325	27.5
5000	325	27.5
5100	320	25.0
5200	320	24.5
5300	320	24.5
5400	320	24.5
5500	320	26.5
5600	325	24.5
5700	325	23.0
5800	320	22.0
5900	320	22.0
6000	320	22.0
6100	315	20.5
6200	315	18.5
6300	320	20.5
6400	310	21.5
6500	310	21.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
6600	300	22.0
6700	300	23.0
6800	300	24.0
6900	300	27.5
7000	295	25.0
7100	295	25.5
7200	295	27.0
7300	290	28.0
7400	290	29.0
7500	290	28.5
7600	290	28.0
7700	290	34.5
7800	285	32.5
7900	290	30.0
8000	290	33.0
8100	290	31.0
8200	290	32.5
8300	290	31.5
8400	285	31.0
8500	285	34.5
8600	285	34.5
8700	290	31.0
8800	280	27.5
8900	280	27.5

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
9000	285	27.0
9100	285	28.5
9200	290	29.0
9300	290	26.5
9400	295	26.0
9500	295	23.0
9600	295	23.0
9700	290	25.0
9800	305	24.0
9900	305	28.0
10000	295	27.5
10100	290	25.5
10200	295	25.5

HEIGHT (FEET)	DIRECTION (DEGREES)	SPEED (MPH)
10300	290	29.0
10400	305	29.5
10500	300	29.0
10600	300	26.5
10700	305	22.5
10800	300	23.5
10900	305	29.0
11000	300	33.5
11100	295	31.5
11200	300	33.5
11300	300	29.0
11400	300	28.0
11500	300	29.0

TABLE III. (CONT)

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
-30.0	CALM		-01.25	01	035	+04.50	01	039
-25.0	<u>01</u>	<u>035</u>	-01.00			+04.75		
-20.0			-00.75			+05.00		
-15.0			-00.50			+05.25		
-10.0			-00.25			+05.50		
-09.5			-00.00			+05.75		
-09.0			+00.25			+06.00		
-08.5			+00.50			+06.25		
-08.0			+00.75			+06.50		
-07.5			+01.00			+06.75		
-07.0			+01.25			+07.00		
-06.5			+01.50			+07.25	01	039
-06.0			+01.75			+07.50	01	040
-05.5			+02.00	01	035	+07.75		
-05.0			+02.25	01	036	+08.00		
-04.5			+02.50	01	037	+08.25		
-04.0			+02.75	01	038	+08.50		
-03.5			+03.00	01	039	+08.75		
-03.0			+03.25			+09.00		
-02.5			+03.50			+09.25		
-02.0			+03.75			+09.50		
-01.75			+04.00			+09.75		
-01.50	01	035	+04.25	01	039	+10.00	01	040

TABLE IV. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 1
 12831D LANCE, MISSILE NO. 3298, ROUND NO. 304 ESL
 LAUNCHED FROM LC-33, 0853 MST/3 DECEMBER 1977

WSTM COORDINATES: X = 485,874.29 Y = 185,958.90 Z = 4,018.74

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG	T-TIME (MIN-SEC)	SPEED (MPH)	DIR DEG
-30.0	CALM	CALM	-01.00	CALM	CALM	+05.00	CALM	CALM
-25.0			-00.75			+05.25		
-20.0			-00.50			+05.50		
-15.0			-00.25			+05.75		
-10.0			-00.00			+06.00		
-09.5			+00.25			+06.25		
-09.0			+00.50			+06.50		
-08.5			+00.75			+06.75		
-08.0			+01.00			+07.00		
-07.5			+01.25			+07.25		
-07.0			+01.50			+07.50		
-06.5			+01.75			+07.75		
-06.0			+02.00			+08.00		
-05.5			+02.25			+08.25		
-05.0			+02.50			+08.50		
-04.5			+02.75			+08.75		
-04.0			+03.00			+09.00		
-03.5			+03.25			+09.25		
-03.0			+03.50			+09.50		
-02.5			+03.75			+09.75		
-02.0			+04.00			+10.00		
-01.75			+04.25			+10.50		
-01.50			+04.50			+11.00		
-01.25	CALM	CALM	+04.75	CALM	CALM	+11.50	CALM	CALM

TABLE V. ANEMOMETER-MEASURED WIND SPEED AND DIRECTION, POLE NO. 2
12831D LANCE, MISSILE NO. 3298, ROUND NO. 304 ESL
LAUNCHED FROM LC-33, 0853 MST/3 DECEMBER 1977

WSTM COORDINATES X = 485,874.93 Y = 186,012.00 Z = 4,033.57

NOTE: WIND DIRECTION DATA ARE REFERENCED TRUE NORTH.

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

SIGNIFICANT LEVEL DATA

3370030462

JALLEN

TABLE VI.

STATION ALTITUDE 4051.00 FEET MSL
3 DEC. 77 0645 HRS MST
ASCENSION NO. 462

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT		REL. HUM. PERCENT
		DEGREES	CENTIGRADE	
876.4	4051.0	2	-3.9	74.0
866.1	4369.4	6.8	-4.9	43.0
850.0	4879.8	11.9	-2.7	36.0
792.8	6786.0	10.1	-4.3	36.3
769.8	7586.3	8.3	-5.2	38.0
749.8	8298.7	7.7	-6.0	37.0
710.3	9753.2	4.5	-7.9	40.0
700.0	10143.7	4.9	-8.5	37.0
640.8	12500.6	3.5	-14.6	25.0
500.0	18948.4	-8.8	-28.2	19.0
480.3	19964.1	-11.1	-30.7	18.0
400.0	24450.5	-24.1	-38.8	24.0
306.8	30586.4	-39.8	-50.1	32.0
300.0	31087.0	-40.5		
250.0	35056.0	-51.5		
227.8	37026.7	-52.4		
206.8	39056.1	-55.8		
200.0	39754.8	-54.1		
187.3	41134.5	-53.0		
150.0	45729.2	-61.1		
141.8	46863.7	-63.5		
112.8	51421.9	-66.4		
103.8	53058.1	-68.5		
100.0	53789.0	-68.0		
96.8	54428.8	-66.9		

STATION ALTITUDE 4051.00 FEET MSL
3 DEC. 77 0645 HRS MST
ASCENSION NO. 462

UPPER AIR DATA
3370030462
JALLEN
TABLE VII.

GEODETIC COORDINATES
33°16'12" LAT DEG
106°49'51" LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4051.0	876.4	02	-3.9	74.0	1114.7	644.7	345.0	1.0	1.000272
4500.0	862.0	01	-4.3	41.2	1065.5	654.0	316.9	2.1	1.000259
5000.0	846.3	11.8	-2.8	36.0	1032.4	658.3	308.8	3.6	1.000253
5500.0	831.0	11.3	-3.2	36.0	1015.4	657.8	305.4	5.1	1.000249
6000.0	815.9	10.8	-3.6	36.0	998.7	657.2	303.5	6.6	1.000244
6500.0	801.1	10.4	-4.0	36.0	982.3	656.7	302.4	8.1	1.000240
7000.0	786.6	9.6	-4.5	36.5	967.0	655.8	304.5	9.6	1.000236
7500.0	772.2	8.5	-5.1	37.8	953.2	654.8	312.4	10.9	1.000232
8000.0	758.1	8.0	-5.7	37.4	937.7	653.8	318.5	12.3	1.000228
8500.0	744.2	7.3	-6.3	37.4	922.8	653.0	318.9	12.6	1.000224
9000.0	730.5	6.2	-6.9	38.4	909.4	651.7	317.4	12.4	1.000220
9500.0	717.0	5.1	-7.6	39.5	896.2	650.4	315.6	12.5	1.000217
10000.0	703.8	4.8	-8.3	38.1	880.7	650.0	312.6	14.0	1.000212
10500.0	690.7	4.7	-9.4	35.2	864.6	649.9	310.2	15.6	1.000207
11000.0	677.9	4.9	-10.6	32.6	849.6	649.5	307.3	16.5	1.000203
11500.0	665.3	4.1	-11.9	30.1	834.8	649.1	303.9	17.1	1.000198
12000.0	652.9	3.8	-13.2	27.5	820.3	648.7	300.7	17.7	1.000194
12500.0	640.8	3.5	-14.6	25.0	806.0	648.4	293.9	17.7	1.000189
13000.0	628.6	2.5	-15.7	24.5	793.4	647.2	286.7	17.9	1.000186
13500.0	616.6	1.6	-16.7	24.1	781.1	646.1	279.7	18.5	1.000182
14000.0	604.9	0.6	-17.8	23.6	768.9	644.9	273.7	19.6	1.000179
14500.0	593.3	-0.3	-18.8	23.1	756.9	643.8	268.3	21.0	1.000176
15000.0	582.0	-1.3	-19.9	22.7	745.2	642.6	267.2	22.5	1.000172
15500.0	571.0	-2.2	-20.9	22.2	733.6	641.5	267.7	23.9	1.000169
16000.0	560.1	-3.2	-21.9	21.7	722.2	640.3	268.1	25.4	1.000166
16500.0	549.4	-4.1	-23.0	21.3	711.0	639.2	267.1	25.7	1.000163
17000.0	538.9	-5.1	-24.0	20.8	699.9	638.0	266.1	26.0	1.000161
17500.0	528.7	-6.0	-25.1	20.3	689.1	636.9	264.8	26.1	1.000158
18000.0	518.6	-7.0	-26.2	19.9	678.4	635.7	261.2	25.1	1.000155
18500.0	508.7	-7.9	-27.2	19.4	667.9	634.6	257.4	24.2	1.000152

UPPER AIR DATA
3370030462
JALLEN

STATION ALTITUDE 4051.00 FEET MSL
3 DEC. 77 0645 HRS MST
ASCENSION NO. 462

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

TABLE VII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT DEGREES	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
19000.0	499.0	-8.9	-28.3	18.9	657.6	633.4	254.5	23.6	1.000150
19500.0	489.2	-10.0	-29.5	18.5	647.5	632.0	253.0	23.3	1.000147
20000.0	479.6	-11.2	-30.7	18.0	637.6	630.6	251.4	23.0	1.000145
20500.0	469.9	-12.7	-31.6	18.7	628.2	628.9	251.6	23.0	1.000142
21000.0	460.4	-14.1	-32.4	19.4	619.0	627.1	253.0	23.2	1.000140
21500.0	451.1	-15.6	-33.3	20.1	609.9	625.4	254.3	23.5	1.000138
22000.0	442.0	-17.0	-34.2	20.7	601.0	623.6	255.5	23.8	1.000136
22500.0	433.1	-18.4	-35.1	21.4	592.2	621.8	256.6	24.1	1.000134
23000.0	424.4	-19.9	-36.0	22.1	583.6	620.0	257.7	24.4	1.000132
23500.0	415.8	-21.3	-37.0	22.7	575.1	618.3	256.9	24.5	1.000130
24000.0	407.4	-22.8	-38.0	23.4	566.8	616.5	256.2	24.6	1.000128
24500.0	399.1	-24.2	-38.9	24.1	558.5	614.7	255.4	24.6	1.000126
25000.0	390.6	-25.5	-39.8	24.7	549.4	613.1	254.6	24.0	1.000124
25500.0	382.3	-26.8	-40.6	25.4	540.4	611.5	253.9	23.5	1.000121
26000.0	374.1	-28.1	-41.5	26.0	531.6	609.9	253.1	23.2	1.000119
26500.0	366.1	-29.3	-42.4	26.7	523.0	608.3	252.2	23.1	1.000117
27000.0	358.3	-30.6	-43.3	27.3	514.5	606.7	251.7	23.4	1.000115
27500.0	350.6	-31.9	-44.2	28.0	506.2	605.1	252.0	24.6	1.000114
28000.0	343.1	-33.2	-45.2	28.6	498.0	603.5	252.3	25.8	1.000112
28500.0	335.8	-34.5	-46.1	29.3	490.0	601.9	253.3	26.4	1.000110
29000.0	328.6	-35.7	-47.0	29.9	482.1	600.3	254.3	27.1	1.000108
29500.0	321.6	-37.0	-48.0	30.6	474.3	598.7	255.2	26.9	1.000106
30000.0	314.7	-38.3	-48.9	31.2	466.7	597.0	256.0	25.9	1.000104
30500.0	307.9	-39.6	-49.9	31.9	459.3	595.4	256.9	25.0	1.000103
31000.0	301.2	-40.4	-64.4	50.6	450.7	594.4	256.8	24.4	1.000100
31500.0	294.4	-41.6			443.0	592.8	256.7	23.9	1.000099
32000.0	287.7	-43.0			435.5	591.0	256.6	23.5	1.000097
32500.0	281.1	-44.4			428.2	589.2	256.4	23.2	1.000095
33000.0	274.0	-45.8			421.0	587.4	256.3	22.9	1.000094
33500.0	268.5	-47.2			414.0	585.6	258.4	23.3	1.000092

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4251.00 FEET MSL
 3 DEC. 77 0645 HRS MST
 ASCENSION NO. 462

UPPER AIR D.T.A
 537503J462
 JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE VII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
34000.0	262.4	-48.6		407.1	583.8	261.3	24.1	1.000091
34500.0	256.5	-50.0		400.3	582.0	263.9	25.0	1.000089
35000.0	250.6	-51.3		393.7	580.2	270.0	24.8	1.000088
35500.0	244.8	-51.7		395.1	579.7	276.9	24.7	1.000086
36000.0	239.1	-51.9		376.5	579.4	283.7	25.0	1.000084
36500.0	233.5	-52.2		368.1	579.1	295.5	23.8	1.000082
37000.0	228.1	-52.4		359.9	578.8	312.6	23.1	1.000080
37500.0	222.7	-53.2		352.7	577.8	329.2	24.4	1.000079
38000.0	217.5	-54.0		345.7	576.7	341.7	28.0	1.000077
38500.0	212.4	-54.9		338.9	575.6	349.0	33.4	1.000075
39000.0	207.4	-55.7		332.2	574.5	354.1	39.2	1.000074
39500.0	202.5	-54.7		322.9	575.8	356.4	43.3	1.000072
40000.0	197.7	-53.9		314.1	576.8	354.2	42.6	1.000070
40500.0	193.0	-53.5		306.2	577.4	352.0	42.0	1.000068
41000.0	188.5	-53.1		298.4	577.9	349.7	41.4	1.000066
41500.0	184.0	-52.6		292.0	577.2	342.6	36.9	1.000065
42000.0	179.6	-54.5		286.2	576.0	333.6	33.1	1.000064
42500.0	175.3	-55.4		280.5	574.9	322.7	30.4	1.000062
43000.0	171.2	-56.3		274.9	573.7	317.3	30.2	1.000061
43500.0	167.1	-57.2		269.5	572.5	315.1	30.8	1.000060
44000.0	163.1	-58.1		264.1	571.4	313.1	31.5	1.000059
44500.0	159.2	-58.9		258.9	570.2	313.5	32.3	1.000058
45000.0	155.4	-59.8		253.7	569.0	318.7	33.4	1.000057
45500.0	151.7	-60.7		248.7	567.8	323.6	34.8	1.000055
46000.0	148.0	-61.7		243.8	566.5	326.6	36.3	1.000054
46500.0	144.4	-62.7		239.0	565.1	327.3	37.5	1.000053
47000.0	140.8	-63.6		234.1	564.0	328.0	38.7	1.000052
47500.0	137.3	-63.9		228.7	563.5	328.2	39.7	1.000051
48000.0	133.9	-64.2		223.3	563.1	328.3	40.6	1.000050
48500.0	130.6	-64.5		218.1	562.7	328.2	42.8	1.000049

UPPER AIR DATA
337033462
JALLEN
33.16712 LAT DEG
106.49511 LON DEG

STATION ALTITUDE 1151.00 FEET MSL
3 DEC. 77 0645 HRS MST
ASCENSION NO. 462

TABLE VII. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
4900.0	127.4	-64.9		213.0	562.3	328.7	46.4	1.000047
4950.0	124.2	-65.2		208.1	561.8	329.3	48.0	1.000046
5000.0	121.1	-65.5		203.2	561.4	332.8	46.8	1.000045
5050.0	118.1	-65.8		198.5	561.0	336.0	44.9	1.000044
5100.0	115.2	-66.1		193.9	560.5	338.2	40.4	1.000043
5150.0	112.4	-66.5		189.4	560.0	341.1	35.9	1.000042
5200.0	109.5	-67.1		185.2	559.2			1.000041
5250.0	106.8	-67.8		181.1	558.3			1.000040
5300.0	104.1	-68.4		177.1	557.4			1.000039
5350.0	101.5	-68.2		172.5	557.7			1.000038
5400.0	98.9	-67.6		167.7	558.5			1.000037

STATION ALTITUDE 4051.0 FEET MSL
 3 DEC. 77 0445 HRS MST
 ASCENSION NO. 462

MAJORITY LEVELS
 937.0 30.46
 JMLIEN

GEODETIC COORDINATES
 33.16712 LAT DFG
 106.49511 LON DEG

TABLE VIII.

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4879.	11.9	-2.7	36.	310.1	3.3
800.0	6539.	10.3	-4.1	36.	302.3	8.3
750.0	8291.	7.7	-6.0	37.	319.5	12.7
700.0	10144.	4.9	-8.5	37.	311.8	14.5
650.0	12123.	3.7	-13.5	27.	299.4	17.7
600.0	14243.	2.	-18.2	23.	270.9	20.3
550.0	16513.	-4.1	-22.9	21.	267.1	25.8
500.0	19958.	-8.8	-28.2	19.	254.6	23.6
450.0	24002.	-15.7	-33.4	20.	254.6	23.6
400.0	28469.	-24.1	-38.8	24.	255.4	24.6
350.0	33614.	-32.0	-44.3	28.	252.1	24.9
300.0	39120.	-40.5			256.8	24.2
250.0	45100.	-51.5			272.2	24.7
200.0	51814.	-51.1			354.7	42.8
175.0	42627.	-55.5			318.5	29.8
150.0	45810.	-61.1			326.5	36.1
125.0	49480.	-65.1			330.0	47.8
100.0	53905.	-68.1				

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

SIGNIFICANT LEVEL DATA
J370040261
STATION
TABLE IX.

STATION ALTITUDE 4940.0 FEET MSL
3 DEC. 77 0835 HRS MST
ASCENSION NO. 261

PRESSURE GEOMETRIC		TEMPERATURE		REL. HUM.
ALTITUDE	AIR DEWPOINT			
MILLIBARS	MSL FEET	DEGREES	CENTIGRADE	PERCENT
850.0	4940.0	2.7	-9.5	40.0
832.8	5493.5	9.9	-5.2	34.0
819.8	5921.3	8.7	-6.3	34.0
734.8	8880.9	6.7	-7.5	35.0
700.0	10188.9	7.2	-8.8	31.0
599.8	14292.6	-0.9	-19.9	22.0
582.8	15344.0	-1.4	-19.3	24.0
500.0	18979.4	-10.1	-27.2	23.0
458.8	21127.6	-15.7	-30.7	26.0
443.8	21947.2	-16.8	-31.3	27.0
400.0	24466.1	-24.2	-37.8	27.0
346.8	27819.3	-32.3	-43.4	32.0
300.0	31104.6	-41.1	-49.6	39.0
259.8	34246.2	-49.5		
250.0	35067.6	-50.9		
224.8	37312.1	-54.4		
219.8	37783.4	-54.4		
209.8	38766.1	-51.2		
200.0	39782.5	-51.4		
188.8	41006.0	-51.5		
160.8	44352.6	-59.3		
153.3	45329.2	-59.8		
150.0	45772.4	-61.0		
138.8	47334.6	-64.6		
131.6	48366.9	-64.6		
122.8	49764.0	-68.6		
112.8	51425.0	-68.9		
107.3	52406.7	-66.8		
104.3	52966.8	-66.5		
100.0	53797.9	-67.0		

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

SIGNIFICANT LEVEL DATA
 3370040.261
 STATION

TABLE IX. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
 3 DEC. 77 0835 HRS MST
 ASCENSION NO. 261

PRESSURE MILLIBARS	GFOMETR. ALTITUDE MSL FEET	TEMPERATURE		REL. HUM. PERCENT
		AIR	DEWPOINT DEGREES CENTIGRADE	
81.3	57850.1	-19.9		
75.8	59235.2	-62.7		
70.0	60628.4	-64.8		
67.3	61608.3	-86.6		
50.0	67500.4	-64.6		
44.8	59687.6	-64.6		
39.8	72070.0	-60.0		
30.0	77807.2	-61.0		
23.8	82498.1	-60.5		
20.0	86051.3	-57.4		
11.8	96989.5	-53.6		

STATION ALTITUDE 4940.00 FEET MSL
3 DEC. 77 0635 HRS MST
ASCENSION NO. 201

UPPER AIR DATA
3370040261
STATION
TABLE X.

GEODETIC COORDINATES
33.61920 LAT DEG
106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
4940.0	850.0	2.7	40.0	1072.0	647.5	60.0	1.9	1.000254
5000.0	848.1	3.5	39.3	1066.6	648.4			1.000253
5500.0	837.6	9.9	34.0	1022.9	656.0			1.000247
6000.0	817.4	8.7	34.7	1008.7	654.6			1.000243
6500.0	802.4	8.3	34.2	991.3	654.2			1.000239
7000.0	787.7	8.0	34.4	974.2	653.9			1.000235
7500.0	773.3	7.7	34.5	957.4	653.5			1.000231
8000.0	759.1	7.4	34.7	940.8	653.2			1.000227
8500.0	745.2	7.1	34.9	924.6	652.8			1.000223
9000.0	731.6	6.9	34.6	908.3	652.6			1.000219
9500.0	718.1	7.0	33.1	891.3	652.7	326.3	21.7	1.000215
10000.0	704.9	7.2	31.6	874.6	652.8	323.3	24.7	1.000210
10500.0	691.8	6.6	30.3	860.2	652.1	317.2	25.1	1.000206
11000.0	678.9	5.6	29.2	847.3	650.9	309.9	24.9	1.000202
11500.0	666.3	4.6	28.1	834.5	649.7	299.3	23.9	1.000198
12000.0	653.9	3.6	27.0	822.0	648.5	292.6	23.7	1.000194
12500.0	641.7	2.6	25.9	809.6	647.3	288.5	23.9	1.000190
13000.0	629.7	1.7	24.8	797.5	646.1	290.3	23.4	1.000186
13500.0	618.0	.7	23.7	785.5	644.9	291.8	23.2	1.000183
14000.0	606.4	-.3	22.6	773.7	643.8	290.6	23.9	1.000179
14500.0	595.1	-1.0	22.6	761.2	642.9	289.0	24.5	1.000176
15000.0	583.8	-1.4	23.9	747.7	642.5	286.6	24.9	1.000173
15500.0	572.5	-2.4	23.9	736.1	641.3	285.1	24.6	1.000170
16000.0	561.5	-3.5	23.8	724.9	640.0	284.4	24.2	1.000167
16500.0	550.7	-4.6	23.6	713.9	638.6	284.7	25.9	1.000164
17000.0	540.1	-5.7	23.5	703.1	637.3	286.1	26.8	1.000162
17500.0	529.6	-6.8	23.4	692.4	636.0	288.6	26.8	1.000159
18000.0	519.4	-7.9	23.2	681.9	634.6	287.3	24.6	1.000156
18500.0	509.4	-9.0	23.1	671.6	633.3	264.4	22.4	1.000153
19000.0	499.6	-10.2	23.0	661.4	631.9	278.7	21.3	1.000151

XX WIND DATA INVALID DUE TO MISSING RAW ZIMUTH AND ELEVATION ANGLES.

UPPER AIR DATA
J370040261
STATION
TABLE X. (CONT)

STATION ALTITUDE 49400.0 FEET MSL
3 DEC. 77 0835 HRS MST
ASCENSION NO. 261

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CELSIUS	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	KIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
19500.0	489.7	-11.5	-28.0	23.7	651.6	630.4	277.6	20.8	1.000148
20000.0	487.5	-12.8	-28.9	24.1	641.9	628.8	279.9	20.7	1.000146
20500.0	470.5	-14.1	-29.7	25.1	632.3	627.2	283.4	21.9	1.000144
21000.0	461.2	-15.4	-30.5	25.6	623.0	625.6	285.4	22.4	1.000141
21500.0	451.9	-16.2	-31.0	26.5	612.5	624.6	285.5	21.7	1.000139
22000.0	442.8	-17.0	-31.4	27.0	601.9	623.7	282.4	19.8	1.000137
22500.0	433.8	-18.4	-32.7	27.0	593.1	621.9	277.3	17.6	1.000134
23000.0	424.9	-19.9	-34.0	27.0	584.3	620.1	273.7	16.5	1.000132
23500.0	416.3	-21.4	-35.3	27.0	575.8	618.3	269.8	15.4	1.000130
24000.0	407.8	-22.8	-36.6	27.0	567.3	616.4	265.7	14.3	1.000128
24500.0	399.4	-24.3	-37.8	27.1	559.0	614.6	260.2	12.5	1.000126
25000.0	391.0	-25.5	-38.6	27.8	549.9	613.2	253.6	11.0	1.000124
25500.0	382.8	-26.7	-39.4	28.5	541.0	611.6	243.5	10.6	1.000122
26000.0	374.7	-27.9	-40.3	29.5	532.2	610.1	244.9	11.8	1.000120
26500.0	366.4	-29.1	-41.1	30.0	523.6	608.6	243.4	13.6	1.000118
27000.0	359.1	-31.3	-41.9	30.8	515.1	607.1	247.5	15.1	1.000116
27500.0	351.5	-31.5	-42.6	31.5	506.8	605.6	252.9	16.1	1.000114
28000.0	344.0	-32.8	-43.7	32.4	498.5	604.0	259.5	16.8	1.000112
28500.0	336.5	-34.1	-44.6	33.5	490.4	602.3	261.2	17.5	1.000110
29000.0	329.2	-35.5	-45.5	34.5	482.4	600.7	261.8	18.2	1.000108
29500.0	322.0	-36.8	-46.5	35.0	474.6	599.0	261.1	19.0	1.000106
30000.0	315.0	-38.1	-47.4	36.6	466.9	597.3	259.9	19.6	1.000105
30500.0	308.1	-39.5	-48.4	37.7	459.3	595.5	258.2	19.9	1.000103
31000.0	301.4	-40.8	-49.4	38.0	451.9	593.8	257.2	21.4	1.000101
31500.0	294.6	-42.2	-51.7	34.1.0	444.3	592.1	258.3	23.1	1.000099
32000.0	287.9	-43.5	-54.5	27.9.0	436.8	590.4	263.7	25.1	1.000098
32500.0	281.4	-44.8	-57.7	21.7.0	429.4	588.7	267.5	26.1	1.000096
33000.0	275.1	-46.2	-61.5	15.5.0	422.1	586.9	270.5	25.8	1.000094
33500.0	268.8	-47.5	-66.3	9.3.0	415.0	585.2	273.8	24.8	1.000092
34000.0	262.7	-48.8	-74.9	3.1.0	408.1	583.5	277.4	23.4	1.000091

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

UPPER AIR DATA
3770000261
STATION
TABLE X. (CONT)

STATION ALTITUDE 4940.00 FEET MSL
3 DEC. 77 0835 HRS MST
ASCENSION NO. 201

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIHARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
3450.0	256.7	-49.9		400.7	582.0	280.7	22.2	1.000089
3500.0	250.8	-50.8		392.9	540.9	284.0	20.5	1.000088
3550.0	244.9	-51.6		385.1	579.9	287.0	17.1	1.000086
3600.0	239.2	-52.4		377.4	578.9	301.0	14.5	1.000084
3650.0	233.6	-53.1		369.9	577.9	324.6	14.3	1.000082
3700.0	228.1	-53.9		362.5	576.8	341.1	20.5	1.000081
3750.0	222.8	-54.4		354.8	576.2	348.4	28.9	1.000079
3800.0	217.6	-53.7		345.3	577.1	349.6	37.4	1.000077
3850.0	212.5	-52.1		334.8	579.3	349.9	46.0	1.000075
3900.0	207.5	-51.2		325.8	580.3	350.3	49.6	1.000073
3950.0	202.7	-51.3		318.3	580.2	350.6	52.4	1.000071
4000.0	198.0	-51.4		311.0	580.1	348.8	49.1	1.000069
4050.0	193.4	-51.5		303.8	580.1	346.5	44.8	1.000068
4100.0	188.9	-51.5		296.8	580.0	342.5	39.0	1.000066
4150.0	184.4	-52.7		291.3	578.5	337.0	33.2	1.000065
4200.0	180.0	-53.8		285.9	577.0	328.1	29.3	1.000064
4250.0	175.7	-55.0		280.6	575.4	316.6	27.0	1.000062
4300.0	171.6	-56.1		275.4	573.9	305.3	29.0	1.000061
4350.0	167.5	-57.3		270.4	572.3	297.8	34.7	1.000060
4400.0	163.5	-58.5		265.4	570.8	295.7	39.6	1.000059
4450.0	159.6	-59.4		260.2	569.6	298.3	43.1	1.000058
4500.0	155.8	-59.8		254.2	569.3	301.7	44.2	1.000057
4550.0	152.0	-60.3		248.8	568.4	307.6	41.0	1.000055
4600.0	148.3	-61.5		244.1	566.7	315.1	38.2	1.000054
4650.0	144.7	-62.7		239.5	565.2	324.8	36.0	1.000053
4700.0	141.1	-63.8		234.9	563.6	331.0	34.6	1.000052
4750.0	137.7	-64.6		230.7	562.6	333.5	33.3	1.000051
4800.0	134.2	-64.7		224.4	562.4	330.6	33.2	1.000050
4850.0	130.9	-65.2		219.3	561.8	325.1	33.8	1.000049
4900.0	127.6	-66.5		215.2	560.0	323.2	37.3	1.000048

UPPER AIR DATA
 337004Z261
 STATION
 33.81920 LAT DEG
 106.66501 LON DEG

STATION ALTITUDE 4947.0 FEET MSL
 3 DEC. 77 0835 HRS MST
 ASCENSION NO. 261

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

TABLE X. (CONT)

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
49500.0	124.5	-67.9		211.2	558.2	322.6	41.8	1.000047
50000.0	121.3	-68.6		206.7	557.1	322.5	45.8	1.000046
50500.0	118.3	-68.7		201.5	557.0	322.6	49.7	1.000045
51000.0	115.3	-68.8		196.5	556.9	324.9	47.2	1.000044
51500.0	112.4	-68.7		191.5	557.0	328.0	44.0	1.000043
52000.0	109.5	-67.7		185.7	558.4	331.5	39.2	1.000041
52500.0	106.6	-66.8		180.2	559.7	336.1	34.3	1.000040
53000.0	104.1	-66.5		175.5	560.0	336.6	31.8	1.000039
53500.0	101.5	-66.8		171.4	559.6	334.9	30.2	1.000038
54000.0	99.0	-67.1		167.4	559.2	333.6	29.7	1.000037
54500.0	96.5	-67.5		163.4	558.7	332.8	29.8	1.000036
55000.0	94.0	-67.9		159.6	558.2	333.4	29.3	1.000036
55500.0	91.7	-68.2		155.8	557.7	335.5	28.1	1.000035
56000.0	89.4	-68.6		152.2	557.2	337.9	26.5	1.000034
56500.0	87.1	-68.9		148.6	556.7	341.0	24.2	1.000033
57000.0	84.9	-69.3		145.1	556.2	344.2	22.1	1.000032
57500.0	82.8	-69.6		141.7	555.7	344.5	21.2	1.000032
58000.0	80.7	-69.1		137.8	556.5	345.0	20.2	1.000031
58500.0	78.7	-66.5		132.6	560.0	343.7	16.7	1.000030
59000.0	76.7	-63.9		127.7	563.5	341.1	12.6	1.000028
59500.0	74.8	-63.0		124.0	564.7	339.0	8.9	1.000028
60000.0	73.0	-63.7		121.4	563.8	338.1	5.4	1.000027
60500.0	71.2	-64.4		118.7	562.9	336.3	2.4	1.000026
61000.0	69.4	-65.2		116.3	561.8	346.6	2.1	1.000026
61500.0	67.7	-66.4		114.0	560.7	359.8	1.9	1.000025
62000.0	66.0	-66.5		111.2	560.1	23.5	1.4	1.000025
62500.0	64.3	-66.3		108.4	560.3	65.8	1.3	1.000024
63000.0	62.7	-66.1		105.6	560.5	98.3	1.9	1.000024
63500.0	61.2	-66.0		102.9	560.8	111.6	3.0	1.000023
64000.0	59.7	-65.8		100.2	561.0	117.7	4.2	1.000022

UPPER AIR DATA
 337004Z261
 SIALLION
 TABLE X. (CONT)

STATION ALTITUDE 1940.00 FEET MSL
 3 DEC. 77 0835 HRS MST
 ASCENSION NO. 261

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
						DIRECTION DEGREES(TN)	SPEED KNOTS	
64500.0	58.2	-65.6		97.6	561.2	122.6	5.4	1.000022
65000.0	56.7	-65.4		95.1	561.5	125.7	6.6	1.000021
65500.0	55.3	-65.3		92.7	561.7	126.4	7.0	1.000021
66000.0	53.9	-65.1		90.3	561.9	126.9	7.4	1.000020
66500.0	52.6	-64.9		88.0	562.1	124.3	7.1	1.000020
67000.0	51.3	-64.8		85.7	562.4	119.7	6.5	1.000019
67500.0	50.0	-64.6		83.5	562.6	113.3	5.5	1.000019
68000.0	48.6	-64.6		81.5	562.6	102.0	4.2	1.000018
68500.0	47.6	-64.6		79.4	562.6	81.2	3.1	1.000018
69000.0	46.4	-64.6		77.5	562.6	43.5	2.8	1.000017
69500.0	45.2	-64.6		75.5	562.6	11.9	3.7	1.000017
70000.0	44.1	-64.0		73.5	563.4	23.2	5.2	1.000016
70500.0	43.0	-63.0		71.3	564.7	32.2	7.0	1.000016
71000.0	42.0	-62.1		69.3	566.0	42.6	8.6	1.000015
71500.0	40.9	-61.1		67.3	567.3	53.9	10.4	1.000015
72000.0	39.9	-60.1		65.3	568.6	61.0	12.1	1.000015
72500.0	39.0	-60.1		63.7	568.7	63.2	12.3	1.000014
73000.0	38.0	-60.2		62.2	568.6	65.4	12.5	1.000014
73500.0	37.1	-60.2		60.7	568.4	63.1	12.2	1.000014
74000.0	36.2	-60.3		59.2	568.3	59.1	11.9	1.000013
74500.0	35.3	-60.4		57.8	568.2	55.1	11.6	1.000013
75000.0	34.4	-60.5		56.4	568.1	54.2	11.5	1.000013
75500.0	33.6	-60.6		55.1	568.0	53.2	11.4	1.000012
76000.0	32.8	-60.7		53.8	567.9	51.1	11.9	1.000012
76500.0	32.0	-60.8		52.5	567.7	47.6	13.4	1.000012
77000.0	31.2	-60.9		51.2	567.6	44.8	14.9	1.000011
77500.0	30.5	-60.9		50.0	567.5	44.7	15.7	1.000011
78000.0	29.7	-61.0		48.9	567.5	46.1	15.8	1.000011
78500.0	29.0	-60.9		47.6	567.5	47.5	16.0	1.000011
79000.0	28.3	-60.9		46.4	567.6	50.2	15.6	1.000010

STATION ALTITUDE 4940.00 FEET MSL
 3 DEC. 77 0035 HRS MST
 ASCENSION NO. 261

UPPER AIR DATA
 3370040261
 STATION
 TABLE X. (CONT)

GEODETIC COORDINATES
 33.81920 LAT DEG
 106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) SPEED KNOTS	INDEX OF REFRACTION
79500.0	27.6	-60.8		45.3	567.7	66.0	1.000010
80000.0	26.9	-60.8		44.2	567.7	73.8	1.000010
80500.0	26.3	-60.7		43.1	567.8	72.9	1.000010
81000.0	25.6	-60.7		42.0	567.9	72.1	1.000009
81500.0	25.0	-60.6		41.0	568.0	70.7	1.000009
82000.0	24.4	-60.6		40.0	568.0	68.4	1.000009
82500.0	23.8	-60.5		39.0	568.1	66.1	1.000009
83000.0	23.2	-60.1		38.0	568.7	64.5	1.000008
83500.0	22.7	-59.6		37.0	569.3	63.7	1.000008
84000.0	22.1	-59.2		36.0	569.9	62.8	1.000008
84500.0	21.6	-58.8		35.1	570.4	63.1	1.000008
85000.0	21.1	-58.3		34.1	571.0	65.0	1.000008
85500.0	20.5	-57.9		33.3	571.6	67.5	1.000007
86000.0	20.1	-57.4		32.4	572.2	70.2	1.000007
86500.0	19.6	-57.3		31.6	572.4	72.3	1.000007
87000.0	19.1	-57.1		30.8	572.6	74.0	1.000007
87500.0	18.7	-56.9		30.0	572.9	73.6	1.000007
88000.0	18.2	-56.8		29.3	573.1	71.6	1.000007
88500.0	17.8	-56.6		28.6	573.3	70.1	1.000006
89000.0	17.3	-56.4		27.9	573.5	70.9	1.000006
89500.0	16.9	-56.3		27.2	573.7	73.8	1.000006
90000.0	16.5	-56.1		26.5	574.0	76.6	1.000006
90500.0	16.1	-55.9		25.9	574.2	78.8	1.000006
91000.0	15.8	-55.8		25.2	574.4	80.7	1.000006
91500.0	15.4	-55.6		24.6	574.6	82.7	1.000005
92000.0	15.0	-55.4		24.0	574.8	83.6	1.000005
92500.0	14.7	-55.3		23.4	575.0	83.1	1.000005
93000.0	14.3	-55.1		22.9	575.3	82.5	1.000005
93500.0	14.0	-54.9		22.3	575.5	81.5	1.000005
94000.0	13.6	-54.8		21.7	575.7	79.7	1.000005

STATION ALTITUDE 4940.0 FEET MSL
3 DEC. 77 0835 HRS MST
ASCENSION NO. 261

UPPER AIR DATA
337044J261
STALLION
TABLE X. (CONT)

GEODETIC COORDINATES
33.81920 LAT DEG
106.66501 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE		SFL. M. DENSITY PERCENT	SPEED OF SOUND KNOTS	WIND DATA		INDEX OF REFRACTION
		AIR DEGREES	DEWPOINT CENTIGRADE			DIRECTION DEGREES (TN)	SPEED KNOTS	
9450.0	13.3	-54.6		21.2	575.9	77.7	21.4	1.000005
9500.0	13.0	-54.5		20.7	576.1			1.000005
9550.0	12.7	-54.3		20.2	576.3			1.000004
9600.0	12.4	-54.1		19.7	576.6			1.000004
9650.0	12.1	-54.0		19.2	576.8			1.000004

STATION ALTITUDE 1940.00 FEET MSL
 3 DEC. 77
 0935 HRS MST
 ASCENSION NO. 251

WIND DATA
 337074L261
 STATION
 TABLE XI.

STATION ALTITUDE 1940.00 FEET MSL
 3 DEC. 77
 0935 HRS MST
 ASCENSION NO. 251

GEODETIC COORDINATES
 33.81920 LAT DEG
 116.66501 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM.		WIND DATA	
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	DEWPOINT CENTIGRADE	PERCENT	DIRECTION DEGREES(TN)	SPEED KNOTS	
800.0	6584.	8.3	-6.5	34.	9999.0	9999.0XX	
750.0	6329.	7.2	-7.2	35.	9999.0	9999.0XX	
700.0	6110.	7.2	-8.8	31.	320.9	24.8	
650.0	6217.	3.3	-14.0	27.	291.1	23.8	
600.0	6428.	-9	-19.9	22.	290.0	24.3	
550.0	6554.	-4.7	-22.3	24.	284.7	26.2	
500.0	6890.	-10.1	-27.2	23.	278.5	21.3	
450.0	7162.	-16.3	-31.1	27.	285.5	21.4	
400.0	7486.	-24.2	-37.8	27.	260.0	12.4	
350.0	7732.	-31.8	-43.0	32.	255.2	16.3	
300.0	8119.	-41.1	-49.6	39.	256.9	22.0	
250.0	8514.	-50.9			284.9	19.3	
200.0	8984.	-51.4			349.2	49.7	
175.0	9267.	-55.2			309.9	26.6	
150.0	9586.	-61.0			314.3	38.5	
125.0	9951.	-67.6			322.5	42.9	
100.0	53917.	-67.0			333.5	29.7	
80.0	58306.	-68.2			343.8	16.9	
70.0	60984.	-64.8			350.6	2.0	
60.0	64051.	-65.8			120.5	4.8	
50.0	67694.	-64.6			104.4	4.4	
40.0	72191.	-60.2			63.0	12.3	
30.0	78070.	-61.0			47.1	16.0	
25.0	81790.	-60.6			67.9	17.1	
20.0	86376.	-57.4			73.1	12.6	
15.0	92368.	-55.4			82.8	23.2	

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3989.00 FEET MSL
 3 DEC. 77 0840 HRS MST
 ASCENSION NO. 860

SIGNIFICANT LEVEL DATA
 3370020860
 WHITE SANDS
 TABLE XII.

GEODETIC COORDINATES
 32.43043 LAT DEG
 176.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT
880.0	3989.0	3.1	36.0
875.3	4135.4	3.4	37.0
860.3	4602.3	11.6	31.0
850.0	4932.9	12.3	31.0
818.8	5962.7	13.3	31.0
718.3	9529.9	6.4	37.0
700.0	10224.3	6.6	37.0
642.3	12533.0	5.2	23.0
553.3	16455.6	-4.2	23.0
500.0	19050.0	-8.7	18.0
400.0	24569.0	-22.2	23.0
315.3	30123.5	-37.3	23.0
300.0	31241.0	-40.3	25.0
271.8	33417.2	-46.0	
250.0	35224.7	-49.1	
232.3	36801.0	-49.1	
209.8	38963.7	-54.0	
200.0	39970.1	-53.0	
188.3	41242.8	-52.4	
150.0	45943.5	-62.1	
119.3	50513.9	-67.1	
100.0	53985.7	-67.9	
94.0	55194.1	-70.0	
83.3	57573.6	-64.5	
70.0	61004.3	-69.2	
66.3	62064.2	-68.7	
58.3	64615.2	-62.4	
50.0	67683.2	-65.7	
42.3	71028.6	-61.7	
30.0	77960.7	-61.9	

STATION ALTITUDE 3989.00 FEET MSL
 3 DEC. 77 0840 HRS MST
 ASCENSION NO. 860

SIGNIFICANT LEVEL DATA
 3370020860
 WHITE SANDS

TABLE XII. (CONT)

PRESSURE GEOMETRIC ALTITUDE REL. HUM.
 MILLIBARS MSL FEET DEGREES CENTIGRADE PERCENT

20.0 86208.7 -57.9
 11.3 98069.7 -52.4

UPPER AIR DATA
3370020860
WHITE SANDS
TABLE XIII.

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LUN DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
3989.00	880.0	3.1	36.0	1178.4	647.9	310.3	0	1.000261
4000.00	879.6	3.1	35.7	1107.9	647.9	310.3	.1	1.000260
4500.00	863.6	9.8	31.2	1061.4	655.9	310.3	3.9	1.000254
5000.00	847.9	12.4	31.0	1032.5	658.9	310.3	7.7	1.000251
5500.00	832.7	12.9	31.0	1012.1	659.5	310.3	11.5	1.000247
6000.00	817.7	13.2	31.0	992.5	660.0	314.3	16.1	1.000243
6500.00	802.8	12.3	31.2	977.8	658.8	320.0	21.9	1.000239
7000.00	788.2	11.3	31.3	963.4	657.7	319.5	23.3	1.000234
7500.00	773.9	10.3	31.4	949.2	656.6	315.4	21.3	1.000230
8000.00	759.8	9.4	31.6	935.2	655.4	312.2	20.9	1.000226
8500.00	746.0	8.4	31.7	921.4	654.3	309.7	21.1	1.000222
9000.00	732.4	7.4	31.9	907.8	653.1	303.9	21.2	1.000218
9500.00	719.1	6.5	32.0	894.5	652.0	297.7	21.6	1.000214
10000.00	705.9	6.5	30.6	877.8	652.0	291.6	22.1	1.000210
10500.00	692.8	6.4	29.2	862.0	651.9	285.9	22.7	1.000206
11000.00	680.1	6.1	27.6	847.1	651.5	281.4	23.3	1.000201
11500.00	667.5	5.8	26.1	832.4	651.1	278.5	23.6	1.000197
12000.00	655.2	5.5	24.6	818.0	650.8	280.1	22.7	1.000193
12500.00	643.1	5.2	23.1	803.8	650.4	283.0	21.9	1.000189
13000.00	631.0	4.1	23.0	792.0	649.0	288.7	21.7	1.000186
13500.00	619.1	2.9	23.0	780.5	647.6	293.2	21.8	1.000182
14000.00	607.5	1.7	23.0	769.2	646.2	294.2	22.5	1.000179
14500.00	596.0	.5	23.0	758.1	644.7	294.5	23.3	1.000176
15000.00	584.8	-.7	23.0	747.1	643.3	293.0	24.5	1.000173
15500.00	573.8	-1.9	23.0	736.3	641.9	290.9	25.2	1.000170
16000.00	563.0	-3.1	23.0	725.7	640.4	288.1	25.6	1.000167
16500.00	552.3	-4.3	22.9	715.1	639.0	283.3	25.6	1.000165
17000.00	541.7	-5.1	22.0	703.6	638.0	277.5	25.5	1.000162
17500.00	531.2	-6.0	21.0	692.3	636.9	269.9	26.4	1.000159
18000.00	520.9	-6.9	20.0	681.2	635.9	262.5	27.9	1.000156

UPPER AIR DATA
3370020860
#WHITE SANDS
TABLE XIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

GEODETIC COORDINATES
32.40743 LAT DEG
106.37333 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES CENTIGRADE	DEWPOINT TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
18500.0	510.9	-7.7	-27.2	19.1	670.2	634.8	256.9	29.2	1.000153
19000.0	501.0	-8.6	-28.5	18.1	659.4	633.8	251.9	30.5	1.000150
19500.0	491.0	-9.8	-29.3	18.4	649.2	632.3	250.1	30.7	1.000148
20000.0	481.2	-11.0	-30.1	18.9	639.2	630.9	248.6	30.8	1.000145
20500.0	471.5	-12.2	-30.9	19.3	629.4	629.4	248.7	30.3	1.000143
21000.0	462.1	-13.5	-31.7	19.8	619.7	627.9	249.3	29.7	1.000140
21500.0	452.8	-14.7	-32.5	20.2	610.2	626.4	251.1	29.0	1.000138
22000.0	443.8	-15.9	-33.3	20.7	600.8	624.9	252.8	28.4	1.000136
22500.0	434.9	-17.1	-34.1	21.1	591.6	623.4	254.3	28.2	1.000134
23000.0	426.2	-18.4	-34.9	21.6	582.6	621.9	255.0	28.1	1.000132
23500.0	417.7	-19.6	-35.8	22.0	573.7	620.4	254.9	28.2	1.000129
24000.0	409.3	-20.8	-36.6	22.5	564.9	618.9	254.7	28.2	1.000127
24500.0	401.1	-22.0	-37.5	22.9	556.3	617.4	254.4	27.9	1.000125
25000.0	392.7	-23.4	-38.6	23.2	547.6	615.8	254.5	27.5	1.000123
25500.0	384.4	-24.7	-39.7	23.3	538.9	614.1	255.1	26.8	1.000121
26000.0	376.2	-26.1	-40.8	23.5	530.4	612.4	256.1	26.2	1.000119
26500.0	368.2	-27.4	-41.9	23.7	522.0	610.7	257.9	25.8	1.000117
27000.0	360.4	-28.8	-43.0	23.9	513.8	609.0	259.3	25.5	1.000115
27500.0	352.8	-30.2	-44.1	24.1	505.8	607.3	259.6	25.5	1.000113
28000.0	345.3	-31.5	-45.2	24.2	497.8	605.6	260.0	25.5	1.000112
28500.0	338.0	-32.9	-46.3	24.4	490.0	603.9	262.0	25.4	1.000110
29000.0	330.8	-34.2	-47.4	24.6	482.4	602.2	264.0	25.4	1.000108
29500.0	323.8	-35.6	-48.6	24.8	474.9	600.5	265.6	25.2	1.000106
30000.0	317.0	-37.0	-49.7	25.0	467.5	598.7	267.1	24.9	1.000105
30500.0	310.1	-38.3	-54.3	16.6..	459.9	597.0	268.6	24.6	1.000103
31000.0	303.2	-39.7	-64.1	5.4..	452.4	595.3	270.1	24.2	1.000101
31500.0	296.5	-41.0			444.9	593.6	271.6	23.7	1.000099
32000.0	289.8	-42.3			437.4	591.9	274.3	23.7	1.000097
32500.0	283.3	-43.6			430.0	590.2	277.1	23.8	1.000096
33000.0	277.0	-44.9			422.8	588.6	279.2	23.7	1.000094

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

UPPER AIR DATA
3370020860
WHITE SANDS
TABLE XIII. (CONT)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
33500.0	270.8	-46.1		415.5	587.0	280.8	23.3	1.000093
34000.0	264.6	-47.0		407.5	585.9	281.8	23.0	1.000091
34500.0	258.5	-47.9		399.7	584.7	281.3	23.2	1.000089
35000.0	252.6	-48.7		392.1	583.6	280.5	23.2	1.000087
35500.0	246.8	-49.1		383.8	583.1	278.5	23.0	1.000085
36000.0	241.1	-49.1		374.9	583.1	276.3	22.3	1.000084
36500.0	235.6	-49.1		366.3	583.1	272.7	19.3	1.000082
37000.0	230.1	-49.6		358.5	582.5	270.6	16.4	1.000080
37500.0	224.8	-50.7		352.0	581.1	275.6	13.9	1.000078
38000.0	219.5	-51.8		345.5	579.6	293.0	12.2	1.000077
38500.0	214.4	-52.9		339.2	578.1	324.0	14.8	1.000076
39000.0	209.4	-54.0		332.9	576.8	341.8	20.1	1.000074
39500.0	204.5	-53.5		324.3	577.4	350.4	26.3	1.000072
40000.0	199.7	-53.0		316.0	578.1	355.6	32.9	1.000070
40500.0	195.0	-52.8		308.3	578.4	355.1	33.6	1.000069
41000.0	190.5	-52.5		300.7	578.7	353.8	33.4	1.000067
41500.0	186.0	-52.9		294.2	578.1	350.3	30.9	1.000066
42000.0	181.5	-54.0		288.5	576.8	343.5	26.6	1.000064
42500.0	177.2	-55.0		282.9	575.4	333.6	23.2	1.000063
43000.0	173.0	-56.0		277.5	574.0	320.0	22.1	1.000062
43500.0	168.8	-57.1		272.2	572.7	305.8	22.4	1.000061
44000.0	164.8	-58.1		266.9	571.3	302.8	27.0	1.000059
44500.0	160.8	-59.1		261.8	569.9	300.8	31.7	1.000058
45000.0	157.0	-60.2		256.8	568.6	304.8	36.1	1.000057
45500.0	153.3	-61.2		251.9	567.2	309.8	40.7	1.000056
46000.0	149.6	-62.2		247.0	565.9	314.7	42.2	1.000055
46500.0	145.9	-62.7		241.5	565.1	320.3	41.3	1.000054
47000.0	142.3	-63.3		236.1	564.4	325.1	39.9	1.000053
47500.0	138.7	-63.8		230.9	563.7	328.6	37.7	1.000051
48000.0	135.3	-64.3		225.8	562.9	332.4	35.9	1.000050

UPPER AIR DATA
3370020860
#WHITE SANDS
TABLE XIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77
ASCENSION NO. 863

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION (TN) DEGREES	SPEED KNOTS	INDEX OF REFRACTION
48500.0	132.0	-64.9		220.8	562.2	333.8	36.9	1.000049
49000.0	128.7	-65.4		215.9	561.5	335.1	38.0	1.000048
49500.0	125.5	-66.0		211.1	560.7	338.1	39.8	1.000047
50000.0	122.4	-66.5		206.4	560.0	341.5	42.2	1.000046
50500.0	119.4	-67.1		201.8	559.2	344.4	44.1	1.000045
51000.0	116.4	-67.2		196.9	559.1	346.8	43.5	1.000044
51500.0	113.5	-67.3		192.0	558.9	349.3	43.1	1.000043
52000.0	110.6	-67.4		187.3	558.8	350.5	41.4	1.000042
52500.0	107.8	-67.6		182.7	558.6	351.0	38.9	1.000041
53000.0	105.1	-67.7		178.2	558.4	351.8	36.6	1.000040
53500.0	102.5	-67.8		173.9	558.3	354.1	34.9	1.000039
54000.0	99.9	-67.9		169.6	558.1	356.5	33.3	1.000038
54500.0	97.4	-68.8		166.0	556.9	356.7	33.4	1.000037
55000.0	94.9	-69.7		162.5	555.7	356.1	34.2	1.000036
55500.0	92.6	-69.3		158.2	556.2	356.5	32.8	1.000035
56000.0	90.2	-68.1		153.3	557.8	359.0	27.8	1.000034
56500.0	88.0	-67.0		148.6	559.4	2.7	22.9	1.000033
57000.0	85.8	-65.8		144.1	560.9	8.9	15.9	1.000032
57500.0	83.6	-64.7		139.7	562.5	26.8	8.4	1.000031
58000.0	81.5	-65.1		136.5	561.9	98.3	5.2	1.000030
58500.0	79.5	-65.8		133.5	561.0	128.5	5.2	1.000030
59000.0	77.5	-66.5		130.6	560.1	150.6	5.6	1.000029
59500.0	75.5	-67.1		127.8	559.2	166.1	6.2	1.000028
60000.0	73.7	-67.8		125.0	558.2	170.9	4.8	1.000028
60500.0	71.8	-68.5		122.2	557.3	179.7	3.4	1.000027
61000.0	70.0	-69.2		119.6	556.4	282.9	1.3	1.000027
61500.0	68.2	-69.0		116.4	556.7	330.9	5.8	1.000026
62000.0	66.5	-68.7		113.4	557.0	339.1	9.9	1.000025
62500.0	64.9	-67.6		109.9	558.5	350.8	11.9	1.000024
63000.0	63.2	-66.4		106.6	560.2	358.9	14.3	1.000024

UPPER AIR DATA
3370020863
#WHITE SANDS
TABLE XIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 869

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	#WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDEX OF REFRACTION
63500.0	61.7	-65.2		103.3	561.2	16.9	13.6	1.000022
64500.0	60.1	-63.6		103.1	561.2	36.9	10.1	1.000021
65000.0	58.6	-62.7		97.1	565.2	55.0	7.8	1.000021
65500.0	57.2	-62.8		94.7	565.0	76.2	7.2	1.000020
66000.0	55.8	-63.4		92.6	564.3	106.8	5.5	1.000019
66500.0	54.4	-63.9		90.6	563.6	128.3	2.0	1.000018
67000.0	53.1	-64.4		88.5	562.8	134.6	1.9	1.000017
67500.0	51.7	-65.0		86.6	562.1	147.0	1.0	1.000016
68000.0	50.5	-65.5		84.7	561.4	136.3	0.8	1.000015
68500.0	49.2	-65.3		82.5	561.6	56.5	0.5	1.000014
69000.0	48.0	-64.7		80.2	562.4	27.0	0.4	1.000013
69500.0	46.8	-64.1		78.0	563.2	30.1	0.3	1.000012
70000.0	45.7	-63.5		75.9	564.0	36.6	0.2	1.000011
70500.0	44.5	-62.9		73.8	564.8	41.8	0.1	1.000010
71000.0	43.4	-62.3		71.8	565.7	55.8	0.1	1.000009
71500.0	42.4	-61.7		69.8	566.5	68.3	0.1	1.000008
72000.0	41.3	-61.7		68.1	566.5	77.8	0.1	1.000007
72500.0	40.3	-61.7		66.4	566.5	85.3	0.1	1.000006
73000.0	39.3	-61.7		64.8	566.4	91.9	0.1	1.000005
73500.0	38.4	-61.8		63.2	566.4	97.5	0.1	1.000004
74000.0	37.4	-61.8		61.7	566.4	100.8	0.1	1.000003
74500.0	36.5	-61.8		60.2	566.4	104.0	0.1	1.000002
75000.0	35.6	-61.8		58.7	566.4	107.0	0.1	1.000001
75500.0	34.7	-61.8		57.3	566.3	99.5	0.1	1.000000
76000.0	33.9	-61.8		55.9	566.3	87.7	0.1	1.000000
76500.0	33.1	-61.8		54.5	566.3	68.5	0.1	1.000000
77000.0	32.3	-61.9		53.2	566.3	38.3	0.1	1.000000
77500.0	31.5	-61.9		51.9	566.3	18.4	0.1	1.000000
78000.0	30.7	-61.9		50.6	566.2	7.4	0.1	1.000000
	29.9	-61.9		49.4	566.3	9.7	0.1	1.000001

UPPER AIR DATA
3370020860
WHITE SANDS
TABLE XIII. (CONT)

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	AIR TEMPERATURE DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
78500.0	28.3	-61.6			48.4	566.6	28.1	13.8	1.888816
79000.0	27.8	-61.2			45.7	567.2	31.6	14.3	1.000010
80000.0	27.1	-60.9			44.5	567.6	36.1	14.0	1.000010
80500.0	26.5	-60.7			43.4	567.9	40.9	13.8	1.000010
81000.0	25.8	-60.4			42.3	568.2	45.1	13.7	1.000009
81500.0	25.2	-60.2			41.2	568.5	44.6	13.2	1.000009
82000.0	24.6	-59.9			40.2	568.9	44.1	12.8	1.000009
82500.0	24.0	-59.7			39.2	569.2	43.5	12.3	1.000009
83000.0	23.4	-59.5			38.2	569.5	43.6	12.2	1.000008
83500.0	22.8	-59.2			37.2	569.8	43.9	12.1	1.000008
84000.0	22.3	-59.0			36.3	570.1	44.1	12.0	1.000008
84500.0	21.8	-58.7			35.3	570.5	44.6	11.9	1.000008
85000.0	21.2	-58.5			34.4	570.8	46.1	11.8	1.000008
85500.0	20.7	-58.2			33.6	571.1	47.7	11.7	1.000007
86000.0	20.2	-58.0			32.7	571.4	49.2	11.7	1.000007
86500.0	19.7	-57.8			31.9	571.7	49.8	11.6	1.000007
87000.0	19.3	-57.5			31.1	572.1	49.3	11.5	1.000007
87500.0	18.8	-57.3			30.3	572.4	48.9	11.4	1.000007
88000.0	18.3	-57.1			29.6	572.7	48.5	11.3	1.000007
88500.0	17.9	-56.8			28.8	573.0	46.6	11.1	1.000006
89000.0	17.5	-56.6			28.1	573.3	44.3	11.0	1.000006
89500.0	17.1	-56.4			27.4	573.6	42.0	10.8	1.000006
90000.0	16.7	-56.1			26.8	573.9	40.9	10.7	1.000006
90500.0	16.3	-55.9			26.1	574.2	47.8	11.0	1.000006
91000.0	15.9	-55.7			25.4	574.5	54.3	11.4	1.000006
91500.0	15.5	-55.4			24.8	574.8	60.2	12.0	1.000006
92000.0	15.1	-55.2			24.2	575.1	66.8	12.5	1.000005
92500.0	14.8	-55.0			23.6	575.4	74.6	12.8	1.000005
93000.0	14.4	-54.8			23.0	575.7	81.9	13.4	1.000005

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

UPPER AIR DATA
3370020860
WHITE SANDS
TABLE XIII. (CONT)

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	SPEED KNOTS	INDFX OF REFRACTION
93500.0	14.1	-54.5			22.4	576.0	88.6	14.1	1.000005
94000.0	13.7	-54.3			21.9	576.3	88.7	13.7	1.000005
94500.0	13.4	-54.1			21.3	576.6	86.4	12.0	1.000005
95000.0	13.1	-53.8			20.8	577.0	83.5	10.6	1.000005
95500.0	12.8	-53.6			20.3	577.3			1.000005
96000.0	12.5	-53.4			19.8	577.6			1.000004
96500.0	12.2	-53.1			19.3	577.9			1.000004
97000.0	11.9	-52.9			18.8	578.2			1.000004
97500.0	11.6	-52.7			18.4	578.5			1.000004
98000.0	11.3	-52.4			17.9	578.8			1.000004

STATION ALTITUDE 3989.00 FEET MSL
3 DEC. 77 0840 HRS MST
ASCENSION NO. 860

MANDATORY LEVELS
3370020860
WHITE SANDS
TABLE XIV.

GEODETTIC COORDINATES
32.40043 LAT DEG
196.37033 LON DEG

PRESSURE GEOPOTENTIAL		TEMPERATURE		REL. HUM. PERCENT	WIND DATA	
MILLIBARS	FEET	AIR DEGREES	DEWPOINT CENTIGRADE		DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4932.	12.3	-4.3	31.	310.3	7.2
800.0	6601.	12.1	-4.4	31.	320.8	23.1
750.0	8363.	8.7	-7.2	32.	310.4	21.1
700.0	10224.	6.6	-9.7	30.	288.9	22.4
650.0	12215.	5.4	-13.5	24.	280.8	22.3
600.0	14344.	.9	-17.8	23.	295.0	22.9
550.0	16615.	-4.5	-22.6	23.	281.8	25.5
500.0	19058.	-8.7	-28.7	18.	251.6	30.6
450.0	21704.	-15.1	-32.7	20.	252.0	28.7
400.0	24586.	-22.2	-37.6	23.	254.4	27.9
350.0	27752.	-30.7	-44.5	24.	259.8	25.5
300.0	31272.	-40.3			271.0	23.9
250.0	35267.	-49.1			279.2	23.1
200.0	40027.	-53.0			356.1	33.7
175.0	42847.	-55.5			321.8	22.2
150.0	46022.	-62.1			316.0	41.9
125.0	49685.	-66.1			340.2	41.2
100.0	54099.	-67.9			357.0	33.0
80.0	58513.	-65.6			136.6	5.3
70.0	61153.	-69.2			326.4	4.2
60.0	64204.	-63.8			50.5	10.2
50.0	67870.	-65.7			47.2	2.3
40.0	72372.	-61.7			93.4	10.7
30.0	78215.	-61.9			18.2	13.0
25.0	81937.	-60.1			43.8	12.6
20.0	86524.	-57.9			49.4	11.5
15.0	92513.	-55.1			80.9	13.3

.. AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.